

AMENDMENTS TO THE CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

Listing of Claims:

1. (Currently Amended) An inductively coupled antenna, comprising:
a single coil having a plurality of turns including an outermost turn and a plurality of inner turns, wherein the outermost turn is connected in parallel with the plurality of inner turns and a sum of lengths of the plurality of inner turns is longer than a length of the outermost turn.
2. (Previously Presented) The inductively coupled antenna as claimed in claim 1, wherein the outermost turn and the plurality of inner turns are connected to the RF power supply at a branch point of the outermost turn and the plurality of inner turns and the plurality of inner turns are connected to each other in series.
3. (Cancelled)
4. (Original) The inductively coupled antenna as claimed in claim 1, wherein the plurality of turns is concentrically formed.
5. (Previously Presented) The inductively coupled antenna as claimed in claim 1, wherein the plurality of turns are part of a single continuous conductive line.
6. (Cancelled)
7. (Cancelled)
8. (Previously Presented) The inductively coupled antenna as claimed in claim 21, wherein the conductive metal tube has a circular cross-section.

9. (Previously Presented) The inductively coupled antenna as claimed in claim 21, wherein the conductive metal strip has a long and narrow rectangular cross-section.

10. (Previously Presented) The inductively coupled antenna as claimed in claim 21, wherein the metal strip extends away from surface of an outer surface of the metal tube and a distance that the metal strip extends away from the outer surface of the metal tube gradually decreases from a center portion of the antenna to an end portion of the antenna.

11. (Currently Amended) An inductively coupled plasma (ICP) processing apparatus, comprising:

a reaction chamber maintained in a vacuum state;

an antenna installed on the reaction chamber to induce an electric field for ionizing a reactant gas injected into the reaction chamber and for generating plasma; and

a RF power source that is connected to the antenna to supply RF power,

wherein the antenna is formed of a single coil having a plurality of turns, including an outermost turn and a plurality of inner turns, wherein the outermost turn is connected in parallel with the plurality of inner turns and wherein a sum of lengths of the plurality of inner turns is longer than a length of the outermost turn.

12. (Previously Presented) The ICP processing apparatus as claimed in claim 11, wherein the outermost turn and the plurality of inner turns are connected to the RF power supply at a branch point of the outermost turn and the plurality of inner turns and the plurality of inner turns are connected to each other in series.

13. (Cancelled)

14. (Previously Presented) The ICP processing apparatus as claimed in claim 11, wherein the plurality of turns are concentrically formed.

15. (Previously Presented) The ICP processing apparatus as claimed in claim 11, wherein the plurality of turns are part of a single continuous conductive line.

16. (Cancelled)

17. (Cancelled)

18. (Previously Presented) The ICP processing apparatus as claimed in claim 22, wherein the conductive metal tube has a circular cross-section.

19. (Previously Presented) The ICP processing apparatus as claimed in claim 22, wherein the conductive metal strip has a long and narrow rectangular cross-section.

20. (Previously Presented) The ICP processing apparatus as claimed in claim 22, wherein a distance that the metal strip extends away from an outer surface of the antenna gradually decreases from a center portion of the antenna to an end portion of the antenna.

21. (Currently Amended) The inductively coupled antenna, as claimed in claim 1, wherein the coil further comprises:

a conductive metal tube having a cooling path; and

a conductive metal strip that is electrically and thermally connected to the conductive metal tube and is coextensive with the conductive metal ~~tube~~ tube.

22. (Previously Presented) The ICP processing apparatus as claimed in claim 11, wherein the coil further comprises:

a conductive metal tube having a cooling path; and

a conductive metal strip that is electrically and thermally connected to the conductive metal tube and is coextensive with the conductive metal tube.

23. (Previously Presented) The inductively coupled antenna as claimed in claim 1, wherein the outermost coil is connected in parallel to each of the plurality of inner turns.

24. (Previously Presented) The inductively coupled antenna as claimed in claim 2, wherein the branch point of the outermost turn and the plurality of inner turns corresponds to a base point of a substantially U-shaped portion of the coil.

25. (Previously Presented) The ICP processing apparatus as claimed in claim 11, wherein the outermost coil is connected in parallel to each of the plurality of inner turns.

26. (Previously Presented) The ICP processing apparatus as claimed in claim 12, wherein the branch point of the outermost turn and the plurality of inner turns corresponds to a base point of a substantially U-shaped portion of the coil.